WHAT IS CLAIMED IS:

1. Isolated embryonic metanephric tissue which has been obtained from a donor at a suitable stage of embryonic development for use in a method of increasing the functioning nephron mass of a recipient in combination with a growth factor composition comprising at least one growth factor for metanephric development.

2. The isolated embryonic metanephric tissue according to claim 1 wherein said growth factor is selected from the group consisting of insulin-like growth factor I, insulin-like growth factor II, vascular endothelial growth factor, transforming growth factor alpha, transforming growth factor beta, hepatocyte growth factor, fibroblast growth factors, platelet-derived growth factor, leukemia inhibitory factor, angiopoetins 1 and 2, bone morphogenetic proteins, nerve growth factor, vitamin A, and growth hormone.

3. Embryonic metanephric tissue which has been pretreated with a growth factor composition comprising at least one growth factor for metanephric development wherein said pretreated metanephric tissue has enhanced renal development or function in recipients as compared to metanephric tissue which has not been pretreated with said growth factor composition.

4. The embryonic metanephric tissue of claim 4 wherein said growth factor is selected from the group consisting of insulin-like growth factor I, insulin-like growth factor II, vascular endothelial growth factor, transforming growth factor alpha, transforming growth factor beta, hepatocyte growth factor, fibroblast growth factors, platelet-derived growth factor, leukemia inhibitory factor, angiopoetins 1 and 2, bone morphogenetic proteins, nerve growth factor, vitamin A, and growth hormone.

5. A method for the treatment of embryonic metanephric tissue comprising contacting embryonic metanephric tissue obtained from a donor at a suitable stage of embryonic development with a growth factor composition comprising a growth factor for metanephric development.

6. The method of claim 5 wherein said growth factor is selected from the group consisting of insulin-like growth factor I, insulin-like growth factor II, vascular endothelial growth factor, transforming growth factor alpha, transforming growth factor beta, hepatocyte growth factor, fibroblast growth factors, platelet-derived growth factor, leukemia inhibitory factor, angiopoetins 1 and 2, bone morphogenetic proteins, nerve growth factor, vitamin A, and growth hormone.

7. The method of claim 5 wherein said treatment is *in vivo*.

8. The method of claim 7 wherein said treatment occurs during ureteroureterostomy.

9. The method of claim 5 wherein said treatment is *ex vivo*.

10. The method of claim 9 further comprising the step of transplanting said embryonic metanephric tissue into a recipient.

11. A growth factor composition for enchancing the growth and development of embryonic metanephric tissue comprising two or more growth factors for metanephric development.

12. The growth factor composition of claim 11 wherein said two or more growth factors are selected from the group consisting of insulin-like growth factor I, insulin-like growth factor II, vascular endothelial growth factor, transforming growth factor alpha, transforming growth factor beta, hepatocyte growth factor, fibroblast growth factors, platelet-derived growth factor, leukemia inhibitory factor, angiopoetins 1 and 2, bone morphogenetic proteins, nerve growth factor, vitamin A, and growth hormone.